Teacher efficacy in an early childhood professional development school

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Abstract
Teacher efficacy is the belief teachers have in their ability to impact student learning. Efficacy includes teacher confidence in instructional, management and collaboration skills. The following study addresses teacher efficacy in an Early Childhood Professional Development School (PDS). The PDS experience provides an opportunity for mentor teachers to share their knowledge with teacher candidates over extended placements, typically more than 100 hours. Preschool through fourth grade teachers participated in pre and post surveys and in a focus group discussion. Analysis revealed strong efficacy across instructional and management aspects of teaching but relatively weaker teacher confidence in assisting families to support their children’s success. Findings also suggest that early childhood teachers in this PDS setting believe it is their responsibility to nurture strong self-efficacy among their students.

Keywords: Teacher self-efficacy, Early childhood teacher efficacy, Professional development school mentor teachers

Introduction
Teacher educator programs strive to engage pre-service teachers in highly effective learning experiences. Teachers, the learning environment, and individual learners comprise three prominent components of this endeavor. The following pilot study provides insight regarding the intersection of these components. Specifically, teacher beliefs in their ability to impact student learning (self-efficacy) is studied in the context of a particular type of learning environment (professional development schools). The study addressed efficacy among mentor teachers during the first year of implementation of an Early Childhood Professional Development School program.

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Albert Bandura noted that, "...an efficacy expectation is the conviction that one can successfully execute the behavior required to produce the outcomes." (1997, p. 193). Self-efficacy is a person's belief in his or her ability to succeed in a particular situation. Bandura described these beliefs as determinants of how people think, behave, and feel (1994). The purpose of this study was to clarify components of mentor teachers' self-efficacy in an early childhood professional development school (PDS) setting. We asked, "How does being a mentor teacher in an Early Childhood PDS affect teachers' self-efficacy?"

**Literature Review: PDS Impact on Teacher Candidate Performance and Mentor Teacher Development**

Professional development schools were launched with the intention of providing both mentors and teacher candidates opportunities to develop effective teaching strategies and a deep understanding of why these strategies work (Teitel, 2003; Harris & Van Tassell, 2005; Lee & Hemer-Patnode, 2010). Building on the medical model of teaching hospitals, a group of university education deans founded professional development schools upon the premise that sound learning requires continuous reflection by both experienced teachers (mentors) and novice teachers (candidates) within a collaborative, respectful community (Holmes, 1990).

Research clearly identifies positive outcomes for PDS teacher candidates (Castle, Fox, & Souder, 2006; Darling-Hammond, 2007; Sandoval-Lucero et al., 2011). For example, a study comparing PDS and traditional campus-based field experiences revealed slightly higher performance by PDS students during their field experience (Ridley, 2005). Performance was evaluated through blind scoring of lesson planning, lesson reflections, overall teacher effectiveness and content retention. The stronger performance of PDS teacher candidates was not only maintained but grew stronger over time; during their first year of teaching the PDS teacher candidates performed significantly better across the above dimensions than their peers who completed traditional field experiences.

Fulfilling the original PDS intent, professional skills of mentor teachers are also strengthened. In a study addressing pre-service teacher preparation, in-service teachers' professionalism, and children's achievement (Cobb, 2000), 85% of mentor teachers reported learning innovative teaching strategies. Mentors also report a stronger understanding of culturally responsive teaching (McCormick, Eick, & Womack, 2013) as well as enhanced communication and collaboration skills (Beaty-O’Ferrall & Johnson, 2010).

A comprehensive analysis of "simultaneous renewal" of PDS partners (Shroyer et al., 2007) emphasized the importance of always placing student progress at the center of PDS initiatives. A joint commitment to student achievement, along with sufficient resources and time, can result in renewed energy and professional satisfaction for mentor teachers and university personnel.

**Literature Review: Teacher Self-Efficacy**

Teachers' beliefs in their ability to perform well have been researched in a variety of settings. One study of 1,430 teachers in traditional school settings revealed teacher confidence in their ability to implement effective instructional and classroom strategies leading to positive student engagement (Klassen & Chiu, 2010). However, teacher efficacy has not been widely addressed in Professional Development Schools.

Particularly relevant to this pilot study, teachers in younger grades have been found to have stronger self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). A study of early childhood teacher self-efficacy suggests that staff collaboration, student engagement, and consistent opportunities to participate in decision-making contribute to self-efficacy (Guo et
al., 2011). However, in a study of 48 early childhood teachers in 38 centers including Head Start and state-funded PreK, student engagement and teacher experience did not appear to contribute to teachers’ self-efficacy (McGinty et al., 2008). Teacher collaboration and being able to impact decision-making did correlate significantly with self-efficacy.

**Collaboration and Joint Decision-Making are Required in PDS Settings.**

While time frames vary, mentor teachers typically guide pre-service teacher candidates several days each week over the course of an entire semester. They discuss instructional strategies, assessment procedures, individual learning styles, classroom guidance procedures and lesson planning. Joint decision-making occurs regularly as mentors work closely with higher education liaisons to address day-to-day procedures and expectations as well as long-term goals.

The PDS setting allows for a more intensive field experience for teacher candidates. The additional time and intensity requires more mentoring and sharing of one’s own practice. This study sought to clarify how additional sharing affected mentor teachers’ views of their ability to impact children’s learning.

**Setting and Participants**

The pilot study was carried out during the first year of implementation of an early childhood professional development school collaboration in a mid-sized Midwestern community. Several successful PDS programs were underway at the elementary, middle and high school levels. Upon confirming interest among early childhood faculty, an invitation was offered to a school serving children from preschool through fifth grade. The school’s final enrollment for 2012-2013 was 395 children; 166 children received free lunch and 25 reduced lunch. The school served children who were learning English as a second language and included children with a range of exceptionalities.

Fourteen early childhood teacher candidates applied to the PDS program. Acceptance into the program required at least a 3.0 grade point average and completion of foundational courses regarding pedagogy, literacy and public education in the United States. PDS teacher candidates were seeking certification to teach children from birth through age 11. They participated in classroom life every Monday, Wednesday and Friday morning for fourteen weeks, logging a minimum of 100 hours. One teacher candidate was placed with each of 14 mentor teachers who volunteered for this inaugural year.

The fourteen mentor teacher participants taught the following grade levels: preschool (3), kindergarten (3), first grade (3), second grade (2), third grade (1), and fourth grade (2). Their teacher candidates had two additional field experiences before reaching their student teaching semester. Therefore, mentor teachers were guiding candidates who were at the beginning of their pre-service field experiences.

**Methodology and Analysis**

A pre and post survey was used to study mentor teachers’ self-efficacy. The short form of the Teachers’ Sense of Efficacy Scale is comprised of twelve likert scale questions to assess teachers’ views of their ability to address typical aspects of teaching (Tschannen-Moran & Woolfolk Hoy, 2001). Three open-ended questions were added to further study teachers’ views of their teaching skills.

Mentor teachers also participated in a focus group discussion that further addressed how the PDS experience affected their views of the following professional areas: individual
relationships with students, classroom management, understanding of grade or age-level content, teaching strategies, assessment, and creativity.

Descriptive statistical analysis was employed to analyze likert item survey responses. Constant comparative analysis (Miles & Huberman, 1994; Guba & Lincoln, 1981) was used to study mentor teacher comments offered during the focus group discussion, as well as their open-ended survey responses. The authors independently coded and categorized focus group comments and survey responses. To minimize subjectivity, they also identified themes independently.

Findings

Eight (of fourteen) mentor teachers completed the pre survey, three completed the post survey and five participated in the focus group discussion. Response rates may have been affected by the newness of the program (pre survey) and end of the semester activities (post survey and focus group discussion). Participants stated confidence in eleven of the twelve teaching skills (Table 1).

Teachers’ responses to open-ended questions echoed their overall confidence as well as their frustrations in several aspects of teaching. The following teacher statement captures the positive influence teachers believe they have in assisting learners.

I believe that each child can learn. I believe that each child has talents and a purpose in this world. If I can make a connection with each child, and build a classroom community I can get each child to believe they can be successful in school.

When asked to provide additional comments regarding what aspects of their profession can sometimes make teaching difficult, mentors described the current culture of high stakes testing, a state-level initiative aimed at assessing teacher effectiveness, assisting children who have disruptive behaviors and collaborating effectively with families. One participant summarized several of these challenges.

Incorporating time into your day for assessment and reflection can be difficult. Managing individual student behaviors that fluctuate from day to day requires you to be very flexible about your schedule and your plans.

Only three teachers provided post survey responses. They rated their level of influence at 9 (a great deal) for nine of the twelve questions. Mentor teacher ratings for question 11 regarding their ability to influence families were similar to pre survey responses (Table 2).

Five teachers participated in the focus group conversation. They were asked to share how being a PDS mentor had affected their skills in the following areas: individual relationships with students, classroom management, understanding of grade or age-level content, teaching strategies, assessment, and creativity. Analyses of their comments revealed the following themes.

Mentors valued the opportunity to share their knowledge with teacher candidates, and saw this as a way to validate their teaching strengths.
Table 1. Summary of Pre Survey Responses (all except question 11)

<table>
<thead>
<tr>
<th>Question</th>
<th>7 (quite a bit)</th>
<th>8</th>
<th>9 (a great deal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can you do to control disruptive behavior in the classroom?</td>
<td>12%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>2. How much can you do to motivate students who show low interest in school work?</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>3. How much can you do to get students to believe they can do well in school work?</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>4. How much can you do to help your students value learning?</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>5. To what extent can you craft good questions for your students?</td>
<td>25%</td>
<td>37%</td>
<td>37%</td>
</tr>
<tr>
<td>6. How much can you do to get children to follow classroom rules?</td>
<td>37%</td>
<td>10%</td>
<td>50%</td>
</tr>
<tr>
<td>7. How much can you do to calm a student who is disruptive or noisy?</td>
<td>37%</td>
<td>10%</td>
<td>50%</td>
</tr>
<tr>
<td>8. How well can you establish a classroom management system with each group of students?</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>9. How much can you use a variety of assessment strategies?</td>
<td></td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>10. To what extent can you provide an alternative explanation or example when students are confused?</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>12. How well can you implement alternative strategies in your classroom?</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: Teachers’ Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001)
http://people.ehe.osu.edu/ahoy/research/instruments/#Sense

They rated their ability to assist families in helping children do well in school somewhat lower (Table 2).

Table 2. Summary of Pre and Post Survey Responses to Question 11 Regarding Families

<table>
<thead>
<tr>
<th>Question</th>
<th>5 (some influence)</th>
<th>6</th>
<th>7 (quite a bit)</th>
<th>8</th>
<th>9 (a great deal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. How much can you assist families in helping their children do well in school?</td>
<td>10%</td>
<td>25%</td>
<td>10%</td>
<td>10%</td>
<td>37%</td>
</tr>
<tr>
<td>Pre-survey</td>
<td>(1)</td>
<td>(2)</td>
<td>(1)</td>
<td>(1)</td>
<td>(3)</td>
</tr>
<tr>
<td>Post-survey</td>
<td>(33%)</td>
<td>33%</td>
<td>0</td>
<td>33%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Teachers’ Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001)
http://people.ehe.osu.edu/ahoy/research/instruments/#Sense
Effective teaching is rooted in respectful relationships with individual learners. Seeing PDS students develop these relationships was particularly satisfying.

Mentor teachers revealed varying levels of comfort and skill, indicating that while most were comfortable with one teacher candidate, one mentor preferred providing guidance for both a PDS student and a student teacher.

Enhanced reflection skills emerged as the strongest theme. A first grade teacher was among the focus group participants. She described how being a mentor strengthened her ability to reflect.

I just found it great to actually analyze my teaching because some things come so naturally now that you don’t even realize that you’re doing it. So (with a PDS student) you actually have to step back and see what process you take to get there and then whether that’s the right process or should I modify that process. Then you will be able to explain it a little better to the PDS student so that they can take their (own) steps to understanding it better.

Several focus group participants commented on the relationships teacher candidates developed with students. They described the sometimes uncomfortable process of moving from being a friendly helper to being a teacher with clear behavioral expectations. At the conclusion of the focus group discussion, a second grade teacher described the strong bonds her PDS teacher candidate developed with students in the class. This resulted in difficulty saying good-bye.

We had to go to “hug Friday” because she (PDS student) would leave Monday and Wednesday and it would take forever. They would all want to hug her goodbye. “We’ll hug her on Friday, and we’ll high five her on the way out (on Mondays and Wednesdays).” It was just so… “don’t leave!”

Discussion

Participants in this pilot study viewed themselves as highly effective academic instructors. They also rated their management skills as strong. In response to open-ended survey questions, several remarked that working with individual students (particularly those with difficult behaviors) was both challenging and rewarding. Collaborating with families was rated as the most challenging aspect of teaching. These findings were consistent across pre and post survey responses. While this was a short time span of three months, it provides some evidence of stability.

The teaching range of the five participants ranged from preschool through second grade. All had been teaching for at least five years and two for over fifteen years. One of the more experienced participants discussed the challenge of balancing her guidance for a student teacher and for a PDS student. She commented on the unique opportunities available with having both a student teacher and a PDS student in her classroom.

The camaraderie and the collaboration between the student teacher and the PDS student is also an interesting one because the student teacher is much closer to where the PDS student is in life and in their job and career and everything than I am. So they had good conversations. They talked about lessons and so that was really a plus for both of them and the student teacher feels like a mentor like I would feel toward the student teacher so that gives them (an additional) purpose.

Providing effective support for mentor teachers who prefer having both a student teacher and a PDS student suggests an area for further study.
The five focus group participants did not address partnering with families. However, it was highlighted by one of the eight mentors who completed the pre survey. Her response to “Please provide any additional comments regarding the type of things that sometimes make teaching difficult” follows.

It is most difficult when one student is so disruptive. Teaching sometimes cannot continue until outside assistance removes the student. Also when a parent does not understand what happens in the classroom, misunderstands a situation, and is upset about it (teaching is difficult).

Combining pre and post responses, thirty-six percent of mentors rated themselves as having a moderate degree of influence in assisting families with helping their children do well in school (Table 2). Even though sixty-three percent gave themselves a score in the quite-a-bit to great-deal ranges of influence, working effectively with families emerged as the lowest area of self-efficacy. Focus group participants did not bring up this topic; mentor teachers did note working with families as a challenge in response to an open-ended survey question. The National Association for the Education of Young Children holds effective collaboration with families as a critical area of effective teaching (Copple & Bredekamp, 2009). This finding suggests a possible area for mentor teacher professional development.

Limitations and Recommendations

Limitations of this pilot study include a low post survey response rate. Despite several email and in-person reminders, only three of the twelve mentor teachers completed the post survey. Therefore, a comparison of pre and post responses is not possible. The wide grade range can be considered both a limitation and a strength. It is difficult to assess the self-efficacy of teachers from preschool through fourth grade with one instrument. While the basic components of effective teaching are similar, how these are carried out is difficult to capture through one set of prompts. However, providing opportunities for mentors across a wide grade range to participate in one PDS setting can facilitate a rich sharing of effective practices and professional insights.

The wide range of grades in this Early Childhood PDS setting may provide a specific opportunity to address the one area of relative weakness regarding teacher efficacy: assisting families. All mentors in this study are fully certified; some are certified to teach children from birth through age eleven and others are certified for first grade through middle school. It is not known if responses to the family question (Table 2) differ by certification range. Early childhood teachers receive more training in the area of working with families. The collaborative nature of PDS settings could provide an atmosphere for sharing expertise regarding effective family partnership strategies.

A central tenant of self-efficacy is one’s belief in his or her ability to succeed. A corollary is that teachers who have strong self-efficacy pass this on to their students. A preK teacher captured this opportunity in her pre survey response. She stated the following when asked to explain why she viewed herself as being able to provide a great deal of influence in getting students to believe they can do well in school.

My job as an early childhood teacher is to help my students believe in themselves and their abilities as a student. It is important that I send them off to Kindergarten believing they can and will learn. I do this by frequently sharing with them all that they have learned and reminding them how smart they are.
Findings of this pilot study suggest that not only do professional development school mentors have strong self-efficacy, preschool teachers pass this onto their own students. Additional research could clarify if this holds true for mentors across elementary grade levels.

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References


